

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Cope, et al.

Group Art Unit: 2838

Serial No.:

10/634,434

Examiner:

Not Yet Assigned

Filed:

August 5, 2003

Docket:

EMI.1002

For: Self-Powered Direct Current Mitigation Circuit for Transformers

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In connection with the above-entitled matter, Applicant hereby attaches U.S. Patent Office Form PTO-1449, including copies of the references listed thereon. The claims in the present application are believed to be patentably distinguishable over these references.

This information disclosure statement is being made pursuant to the duty of disclosure imposed by law and formulated in 37 CFR 1.56(a). No representation is made that the information thus disclosed in fact constitutes prior art or that it is the closest prior art, inasmuch as 37 CFR 1.56(a) relies on a materiality concept which depends on subjectivity.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 08-1391.

HAYES SOLOWAY P.C.

130 W. CUSHING ST. TUCSON, AZ 85701 TEL. 520.882.7623 FAX. 520.882.7643

175 CANAL STREET MANCHESTER, NH 03101 TEL. 603.668.1400 FAX. 603.668.8567

Reg. No. 48,173

Customer No. 26,812

Peter A. Nieves

Attorney for Applicant HAYES SOLOWAY P.C.

Respectfully submitted,

175 Canal Street, 4th Floor

Manchester, NH 03101-2335

Tel: 603-668-1400





CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on December 15, 2003 at Manchester, New Hampshire.

btophame E. Capone

HAYES SOLOWAY P.C.

130 W. CUSHING ST. TUCSON, AZ 85701 TEL. 520.882.7623 FAX. 520.882.7643

175 CANAL STREET MANCHESTER, NH 03101 TEL. 603.668.1400 FAX. 603.668.8567

ONFORMATION DISCLOSURE CITATION (Use several sheets if necessary) OFF 1 9 2003					EMI.1002 Applicant(s) COPE, et al Filing Date August 5, 2003		10/634,434 Group Art Unit 2838		
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING	
		20010713 014	12/11/00	Gripsho	over, et al.			IF APPRO	JPRIATE
								-	
									<u> </u>
·									
				FOREIG	N PATENT DOCUMENT	rs			
	REF	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	Trans YES	lation NO
									:-
	i						_		
		"Bibliography Transfo	rmer Rooks" Re			ing Author, Title, D	ate, Pertinent Pag	ges, Etc.)	
		Dionography Transit	inci books , ite	VISION 5, D	ccciniber 2002, 1 ages 1-	-2	·		
	\dashv	Walling, et al., "Chara Pages 1707 - 1714	cteristics of Tran	sformer Ex	citing-Current During	Geomagnetic Di	sturbances", O	ctober 199	1,
EXAMINE	R	 			DATE CONSIDERED				
EXAMINE	R: Initia red. Inc	al if citation considered, whether clude copy of this form with next	or not citation is in	conforman	ce with MPEP Section 609	9; Draw line throu	gh citation if not	in conforma	ince and
Form PTO					/REV04	Retent and Tradema	ok Office * II S DEP	ARTMENT OF	COMMEDCE

		Docket Number (Optional)	Application Number					
6	<u>-</u>	EMI.1002	10/634,434					
IMPORM O	ATUN DISCLOSURE CITATION (Use several sheets if necessary)	Applicant(s) COPE, et al.						
	THE STATE OF THE S	Filing Date	Group Art Unit					
WE 13		August 5, 2003	2838					
*EXAMILER INITIAL	OTHER DOCUMENTS (Including Author,	- · · · · ·	•					
S TF	stone, et al., "The Advanced Composition Explo	orer", 1998, Pages 1-23						
	ALSTOM, "Your Partner in Air Core Reactors", Date Unknown, Pages 1-12 (Business Brochure)							
	Dickmander, et al., "AC/DC Harmonic Interactions in the Presence of GCI for the Quebec-New England Phase II HVDC							
	Transmission", January 1994, Pages 68-78							
	Morin, et al., "Modeling of the Hydro-Quebec - New England HVDC System and Digital Controls with EMTP", April 1993, Pages 559-566							
	Brekke, "Solar Eruptions-The eEffects on Earth's Environment", August 2000, Pages 1-3							
	Raforkukerfi, "Example of Transformer Conne	ections and Ground Currents", Date U	nknown, Pages 1-8 (Power Point					
	Presentation)		(2 2 2 2					
	Pirjola, et al., "On Geomagnetically-Induced Cu	urrants in The Finnish 400 kV Powers S	ystam Ry An Auroral Floatroint					
	Current", April 1989, Pages 1239-1245	in the rinnish 400 KV Towers	ystem by An Autoral Electrojet					
	Boteler, et al., "Directional Sensitivity to Geomagnetically Induced Currents of the Hydro-Quebec 735kV Power System", October 1994, Pages 1963 - 1971							
	Boteler, et al., "On Calculating the Electric and a "wide" electrojet", 2000, Pages 1311-1315	Magnetic Fields Produced in Technolo	gical Systems at the Earth's Surface by					
	a wide electrojet , 2000, rages 1311-1315							
	Boteler, et al., "The Effects of Geomagnetic Dis	turbances on Electrical Systems at the l	Earth's Surface", 1998, Pages 17-26					
	Piriola et al "Prediction of Ceomagnetically i	nduced currents in Power Transmission	Systems! 2000 Pages 5-14					
	Pirjola, et al., "Prediction of Geomagnetically induced currents in Power Transmission Systems", 2000, Pages 5-14							
	Baek, et al., "High-Voltage Switch Using Series-Connected IGBTs With Simple Auxiliary Circut", December 2001, Pages 1832-1839							
EXAMINER		DATE CONSIDERED						
*FYAMINED: 1=14451 11	Coltation considered whather or not situation is in	rmance with MPED Section (00, December 1)	through election if not in an formation					
	f citation considered, whether or not citation is in confor e copy of this form with next communication to applicar		in ough citation if not in conformance and					

	Docket Number (Optional)	Application Number				
PATE ANON DISCLOSURE CITATION	EMI.1002 Applicant(s)	10/634,434				
(Use syeral sheets if necessary)	COPE, et al.					
, ,	Filing Date	Group Art Unit				
The same of the sa	August 5, 2003	2838				
	Title, Date, Pertinent Pages, Etc.)					
OTHER DOCUMENTS (Including Author, INITIAL INI	Currents and Local Geomagnetic Va	ariations", October 1998, Pages				
Boteler, "Geomagnetically Induced Currents: P	Present Knowledge and Future Research", January 1994, Pages 50-58					
		· · · · · · · · · · · · · · · · · · ·				
Fothersill "A Naval Protetyne Design for a Tru	and was for High Voltage High En					
2001, Pages 89-98	Fothergill, "A Novel Prototype Design for a Transformer for High Voltage, High Frequency, High Power Use", January 2001, Pages 89-98					
Gole, et al., "Firing Angle Modulaiton for Elimi Pages 2040-2047	inating Transformer Dc Currents in	Coupled Ac-Dc Systems", October 1995,				
ages auto-auti						
Kappenman, "Effects of Geomagnetic Disturba	nces On Power Systems", July 1989	Pages 15-20				
	, z =,	, 1 ages 15-20				
Kappenman, "Geomagnetic Storms and Their I	Impact on Power Systems", May 199	96, Pages 5-8				
Kapperman, et al., "GIC Mitigation: A Neutral	Blocking/Bypass Device to Prevent t	the Flow of GIC in Power Systems",				
1991, Pages 1271-1281		•				
Potalog et al. UMedalling Coomagnatically Ind	Comments Described by Described	7 T. 16 TH. (1 T. 14.11 1005)				
Boteler, et al., "Modelling Geomagnetically Ind Pages 1303-1308	uced Currents Produced by Realistic	and Uniform Electric Fields", 1997,				
Kolawole, et al., "Effect of Geomagnetic-Induce	ed-Current on Power Grids and Com	munication Systems: A Review.", 1990,				
Pages 251-261						
Albertson, et al., "Geomagnetic Disturbance Efi	facts on Dower Systems! July 1903	Dagge 1206 1216				
Albertson, et al., Geomagnetic Disturbance En	lects on rower systems, July 1775,	Pages 1200-1210				
Aspnes, et al., "Geomagnetic Disturbances and T	Aspnes, et al., "Geomagnetic Disturbances and Their Effects on Electric Power Systems", July 1989, Pages 10-13					
Viljanen, et al., "General Mechanisms of Geoma	ganetically induced Currents In Power	" Systems and Dinalines" Date Unknown				
Pages 1-4	igneticanymuuceu Currents in 10mei	r Systems and ripennes, Date Unknown				
EXAMINER	DATE CONSIDERED					
*EXAMINER: Initial if citation considered, whether or not citation is in confor not considered. Include copy of this form with next communication to applican		through citation if not in conformance and				